UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

SUBJECT:	CLEAN AIR ACT INSPECTION REPORT TC Transcontinental Menasha, 271 River Street, Menasha, Wisconsin
FROM:	Linda H. Rosen, Environmental Engineer AECAB (IL/IN)
THRU:	Nathan Frank, Section Supervisor AECAB (IL/IN)
TO:	File

BASIC INFORMATION

Facility Name: TC Transcontinental Menasha (Transcontinental)

Facility Location: 271 River Street, Menasha, Wisconsin

Date of Inspection: 05/11/2022

EPA Inspector(s):
1. Linda H. Rosen, Environmental Engineer
2. Emma Leeds, Environmental Engineer

Other Attendees:
1. Brian Curran, Health, Safety, Wellness & Environmental Manager, Transcontinental
2. Connie Scott, Health, Safety, Wellness & Environmental Coordinator, Transcontinental
3. Adam Uecker, General Manager, Packaging Meat & Cheese, Transcontinental

Contact Email Address: brian.curran@tc.tc; adam.uecker@tc.tc

Purpose of Inspection: We inspected Transcontinental in relation to Clean Air Act requirements, including its Part 70 (Title V) Permit.

Facility Type: Flexographic printing facility for flexible food packaging

Regulations Central to Inspection: Transcontinental's Title V permit which contains provisions related to volatile organic compound (VOC) emissions from the flexographic printing and extruder laminator processes. The printing lines are required to achieve 95 percent overall

efficiency (capture and destruction) of VOC. The total monthly VOC emissions from the use of VOC-containing materials at the facility is not to exceed 20.60 tons of VOC per month averaged over any 12 consecutive month period.

Arrival Time: 2:20 pm
Departure Time: 5:20 pm

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☐ Provided Small Business Resource Information Sheet
☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
☒ Provided CBI warning to facility

The following information was obtained verbally from Transcontinental employees unless otherwise noted.

Company Ownership: The facility was formerly owned by Coveris. In 2018, the facility was acquired by Transcontinental Packaging.

Process Description:
Transcontinental produces flexible packaging for food products such as meat and cheese. The incoming substrate is a large plastic roll, typically polyester. The facility operates five flexographic printing presses which use solvent-based inks to apply 1-10 colors to both sides of the rolls. The facility also operates four extrusion laminators and a water-based varnish coating operation. The finishing operation uses slitters to cut the packaging rolls into smaller, more manageable rolls and the product is shipped out as roll stock.

The printing presses are located in a room (the press room) which the facility claims is a permanent total enclosure (PTE). HVAC floor sweeps draw air from the enclosure to a single Durr Megtec regenerative thermal oxidizer (RTO). The room is replenished with makeup air from the outside. A pressure gauge measures the negative pressure on the press room.

There are about 4500 different printing designs and each design uses its own plates and colors. The plates are made in-house. A batch time can last from 10 minutes to 1 day. The set up for a batch can be several hours. In between batches, the presses are washed and flushed with solvent.

The four extruders, also known as extrusion laminators, attach printed materials to one another using resin. Melted resin is applied between the two layers, or sometimes to just the backside of

one layer. The primary resins used are polyethylene, ethyl vinyl acetate (EVA) and ethyl vinyl alcohol (EVOH). One extruder uses an alcohol-based adhesion promoter. After the extruders, the material goes through a chiller process to harden the resin.

There is one coating line that uses a water-based coating. In addition, printing press 5 has the capability of coating as well.

Staff Interview: The facility operates 24 hours per day, 7 days per week and employs about 270 people.

The RTO was scheduled for testing on June 6, 2022, and was previously tested in 2020, demonstrating 95.6 percent destruction efficiency. The facility conducts monthly inspections of the RTO, total enclosure and ductwork.

The temperature setpoint for the RTO is currently 1550 º F. It was previously 1600 º F. The facility did not immediately know where the temperature was being measured. They said it was measured and recorded every 2 seconds and could not fall lower than 1550 º F in a certain time frame or an operator would initiate a manual shutdown. The facility conducts weekly and monthly checks on the temperature measurement system and conducts calibrations.

The press room was first constructed in 2002 but then enlarged about 10 years ago to accommodate a fifth press. There is a dividing wall that can open and close between the original four presses and the fifth press. The facility did not know whether the press room had ever been evaluated to determine if it met PTE requirements. The facility stated that the pressure in the room varies depending on what doors are opening or closing. The pressure is read at least weekly. The pressure must be greater than -0.07 inches of water column or an operator manually shuts down operations. The manufacturer of the pressure gauge comes to the facility and checks the pressure gauge calibration every two years.

Coating and printing material usage is tracked by inventory and on a per press basis, and this inventory data is used to calculate monthly volatile organic compound emissions (VOCs). Printing ink comes in 55-gallon drums and totes. Sometimes an extender is added to the ink which is provided by the supplier.

The facility is working toward eliminating the alcohol-based adhesion promoter on the 4th extruder, in order to decrease costs and maintain consistency between the extruders.. This will involve replacing the dryer on that operation.

The facility claims that it emits zero hazardous air pollutants (HAPs) and that most of the VOC emissions come from the presses.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
We observed the one dedicated coating line which applies water-based coating. I took a photo of the one of the water-based coating drums and label (Photo 1). The roll unrolls through the coating station where coating is applied in a roll-to-roll operation using a plate. This operation was installed in April 2021 and is located outside the press room. Only a few varnishes are used.

Next, we entered the room where the printing presses were located. We observed the room pressure monitor, located on the mezzanine level, which was registering -0.29 inches of water column (w.c.) (Photo 2). We observed the floor sweeps which draw air to the RTO and took a photo of two of them (Photo 3). We observed the man door on the south side of the enclosure; this was the door through which we entered the enclosure (Photo 4). The enclosure had a total of 8 speed doors (7 on the south side and 1 on the north side) and 5 man doors (3 on the south side, 1 on the east side and 1 on the north side). A speed door on the north side connects to the plate room. Through that door carts containing rolls and plates move in and out of the enclosure. On the man door for press 4, I held a sheet of paper at the entrance and the paper was drawn into the room.

We observed printing press 1 which was going through a color match check and was not operating at the time of the inspection. The facility showed us how plates are mounted on a cylinder. There are five application decks on one end of the line and five on the other. A rotation of the drum applies the colors as the roll moves around the drum. The majority of VOCs in the printing process are emitted at the application stations and at the tunnel dryer.

We observed printing press 5 which was just starting to operate. We observed the computer monitor for the RTO which showed a temperature of 1576 º F and a press room pressure of -0.0409 inches of w.c. (Photo 6). The facility stated that an alarm activates when the temperature and pressure are out of range but they did not know the required values or averaging time for activating the alarm or whether there was an interlock.

We observed extruder 6 which was operating at the time of the inspection. The extruders are numbered 2, 4, 6 and 7. In the extruder process, a printed roll is unwound and sent to the heater. Primer is applied at the station and then the substrate proceeds to the dryer. One roll is laminated to another with 400-450 º F melted resin. The roll is immediately cooled.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

- April 2022 VOC report based on inventory, not taken from facility;
- April 2022 VOC report by press number, not taken from facility;
- Air Emission Inventory Report Spreadsheet for April 2022 and year to date, not taken from facility

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

I sent Brian and Adam electronic messages on June 17 and June 21, 2022, requesting the following records**:**

- PTE assessment of the press room, if available;
- Latest stack test for the June 6 test, if available, or the previous test;
- Latest Annual Emission Report with supporting emission calculations spreadsheet;
- Latest VOC inventory report (including May 2022 and the previous 12 months);
- Latest VOC report by press number (including May 2022 and the previous 12 months);
- PTE assessment of the press room, if available;
- RTO temperature data for the last year; and
- Press room pressure data for the last year

DIGITAL SIGNATURES

Report Author: Linda H. Rosen

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan Date: 2022.07.01 16:27:25 -05'00'

APPENDICES AND ATTACHMENTS

1. Media Appendix

APPENDIX A: DIGITAL IMAGE LOG

Inspector Name: Linda Rosen	**Archival Record Location:** EPA Region 5 Electronic Records Center

Image Number	**File Name**	**Date and Time (incl. Time zone and DST)**	**Description of Image**
1	P5110001.JPG	05/11/2022 03:50 pm	Coating drum and label
2	P5110002.JPG	05/11/2020 03:54 pm	Room Pressure Monitor
3	P5110003.JPG	05/11/2022 03:56 pm	Two black floor sweeps
4	P5110004.JPG	05/11/2022 03:59 pm	Man door on south side of press room
5	P5110005.JPG	05/11/2022 04:00 pm	Door to Enclosure
6	P5110006.JPG	05/11/2022 04:37 pm	Computer display showing temperature and room pressure values